



Graphics Verification Jul 04 Results



Measures Used

2 x 2 Contingency Table

Forecasts

A

B

$C = A + B$

D

E

$F = D + E$

$G = A + D$

$H = B + E$

$I = C + F$

● **Chi-Square** – used to test for statistical significance. Answers the question, “Do we have a large enough sample to know our results are conclusive?”.

● **Heidke Skill Score** – used to test whether we are beating persistence or climatology.

● **Bias** – used to determine whether we are over-forecasting or under-forecasting.



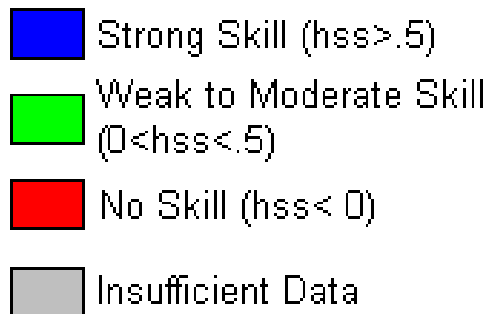
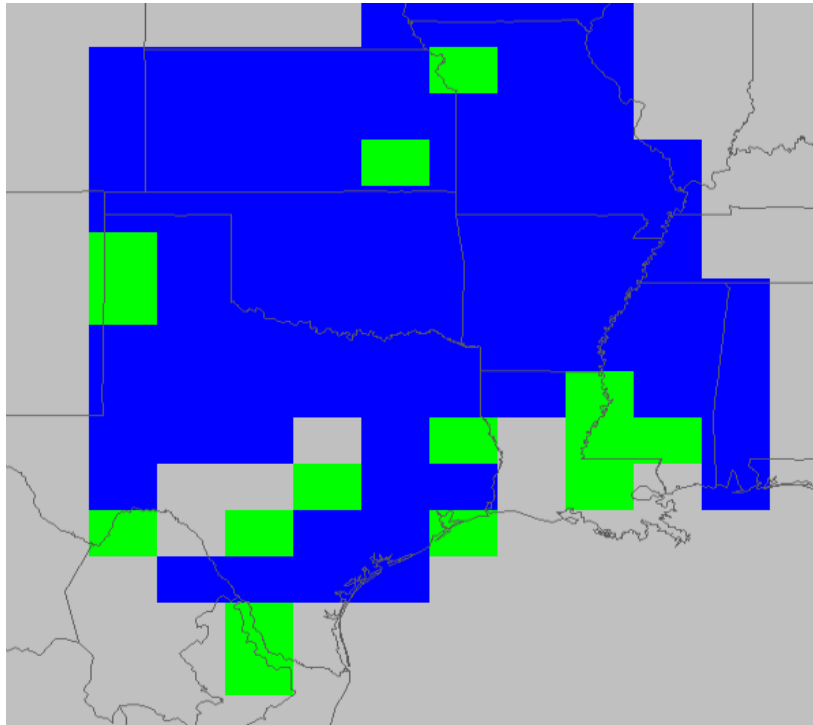
HWD Results

Period: 01-31 Jul 04

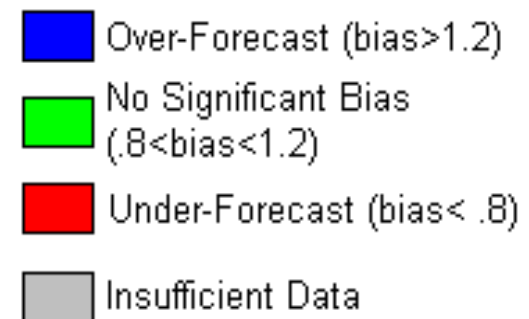
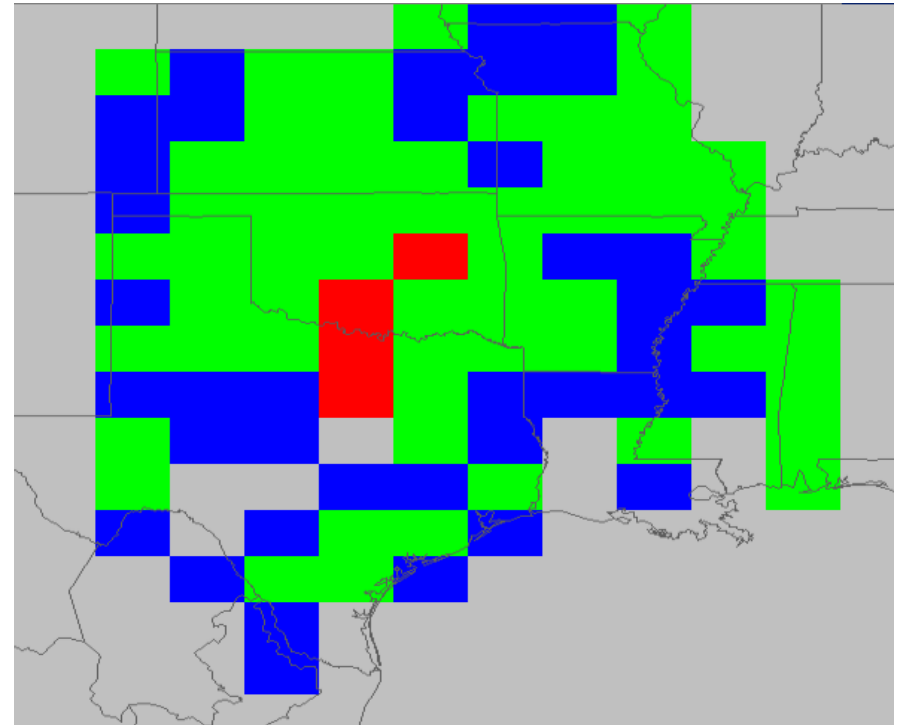


HWD 12 Hr Forecast

HEIDKE SKILL SCORE



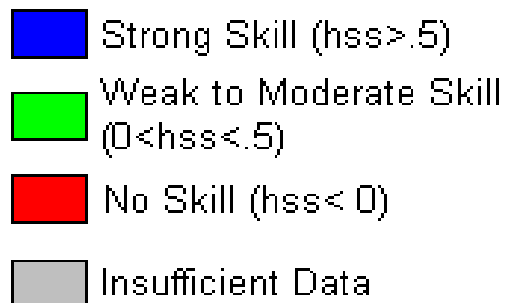
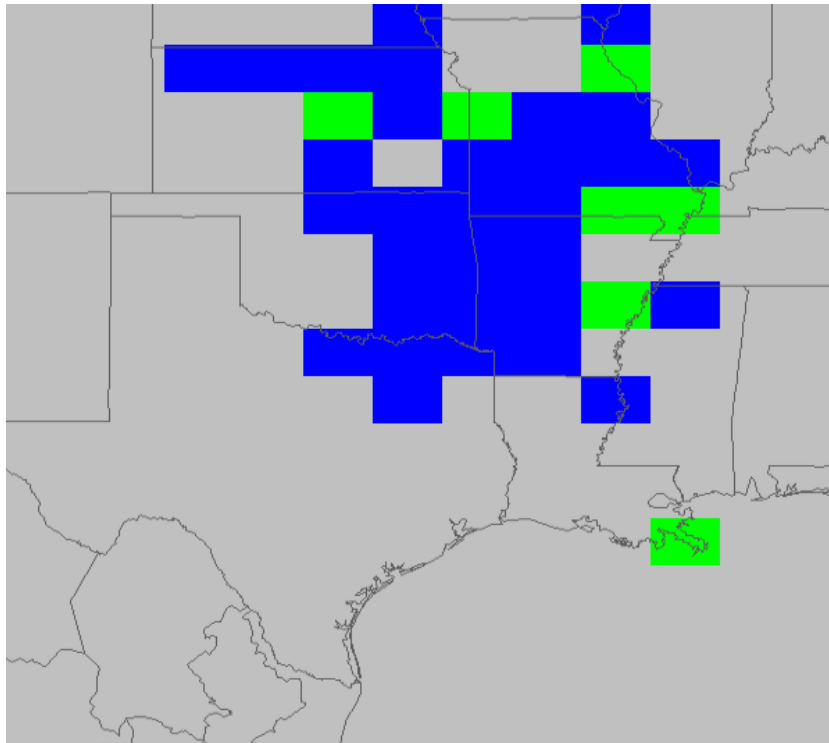
BIAS



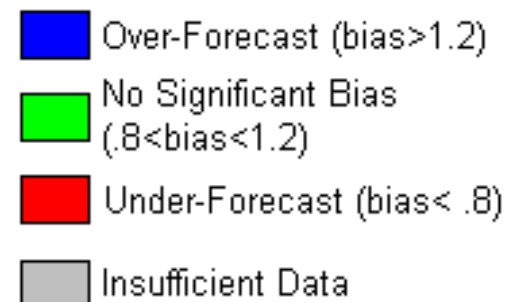
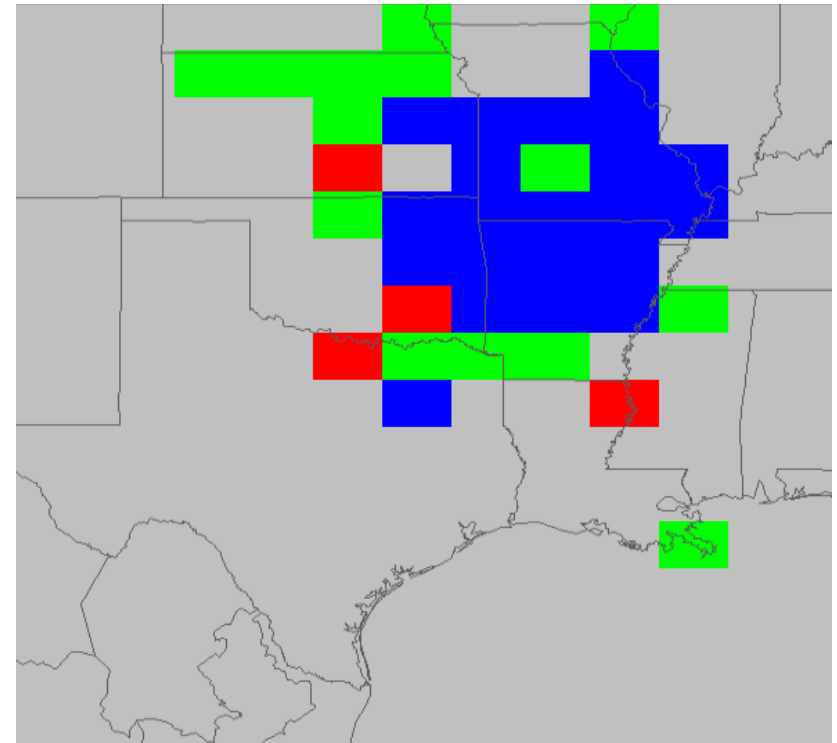


HWD 24 Hr Forecast

HEIDKE SKILL SCORE



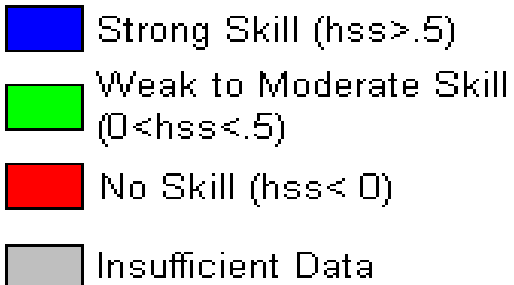
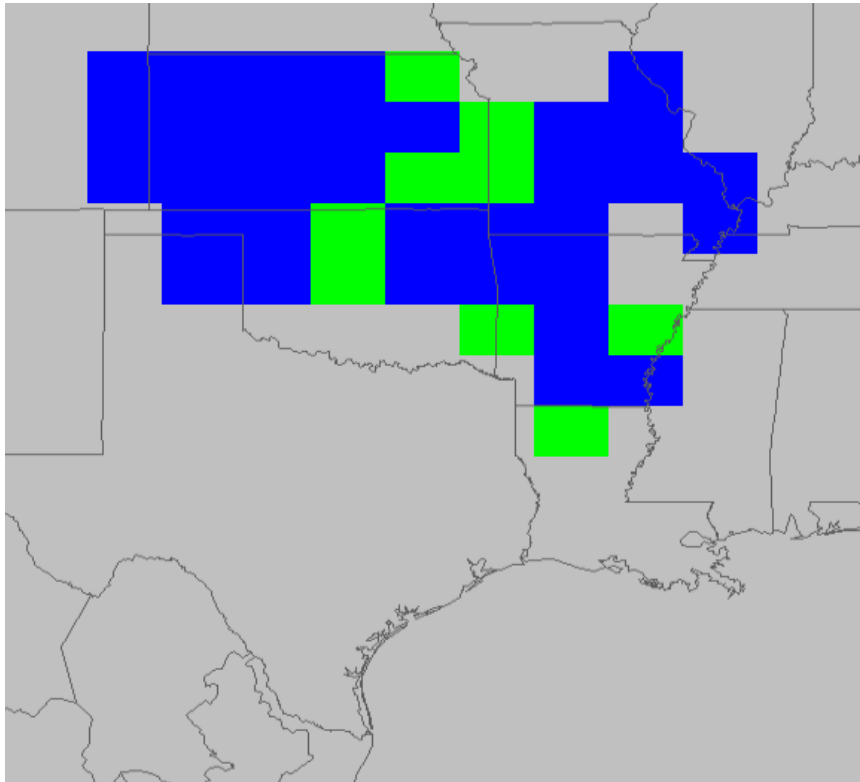
BIAS



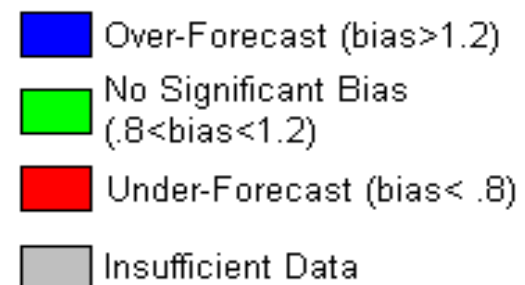
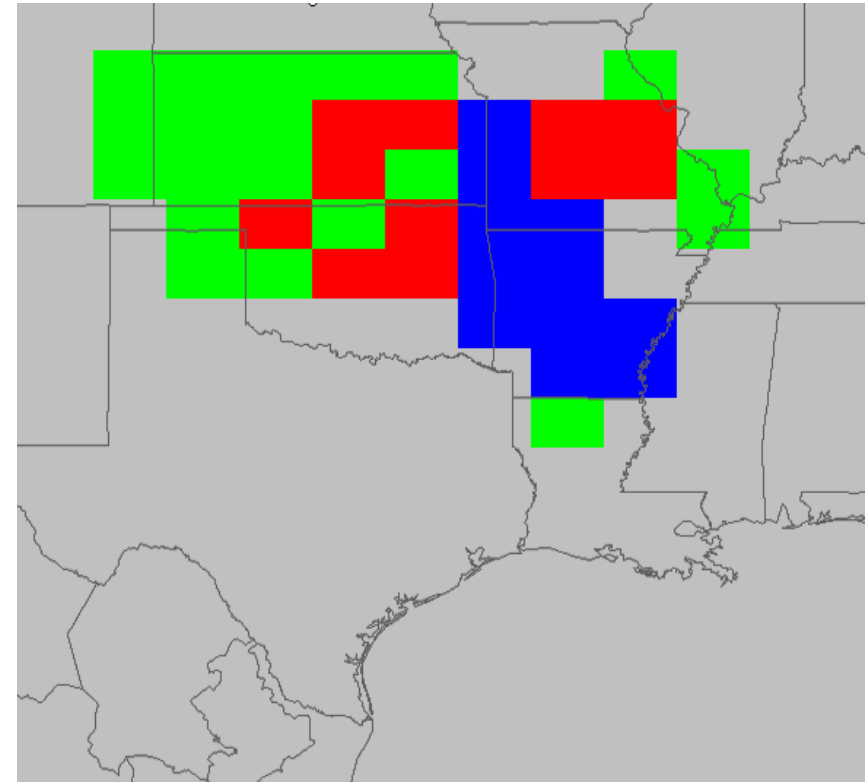


HWD 48 Hr Forecast

HEIDKE SKILL SCORE



BIAS





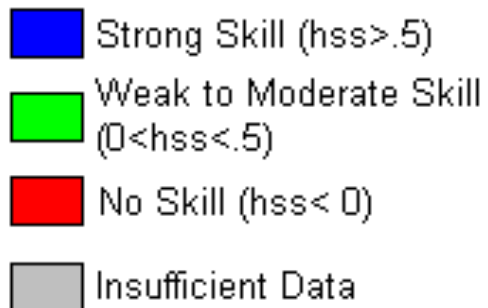
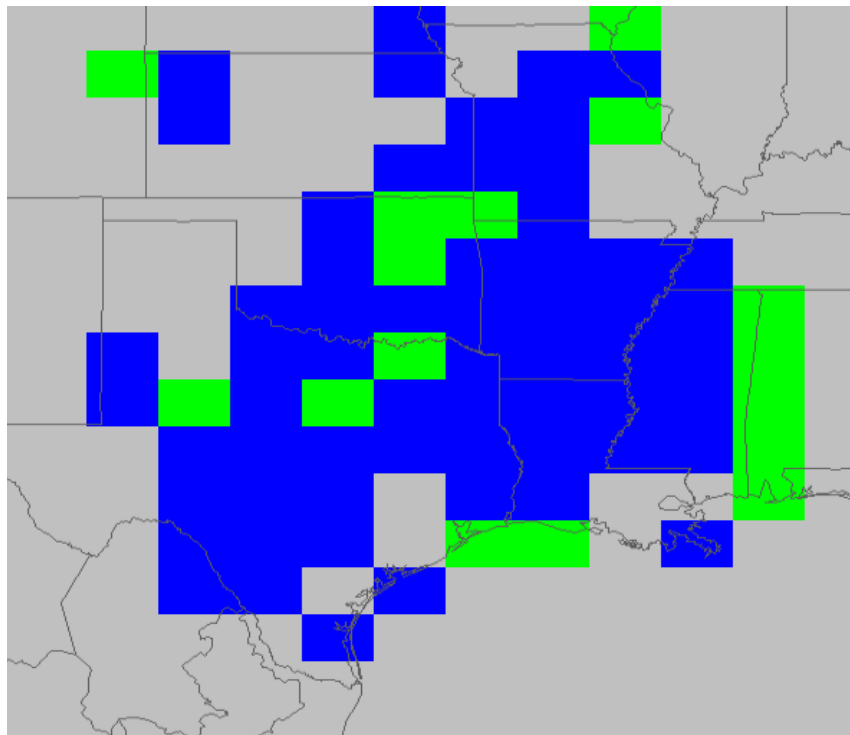
Thunderstorm Results

Period: 01-31 Jul 04

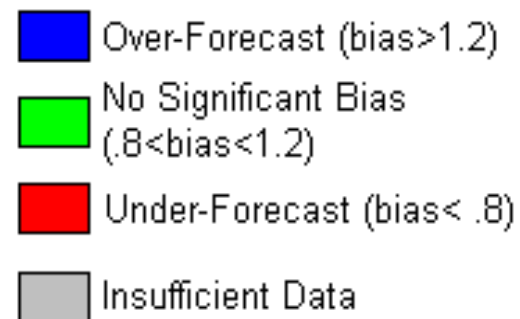
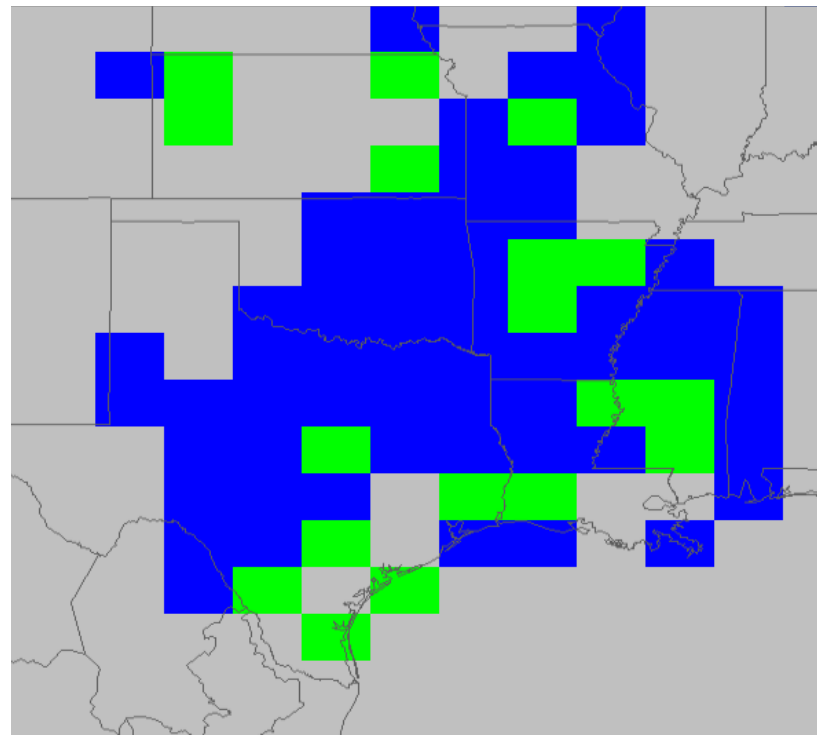


TSTMS 12 Hr Forecast

HEIDKE SKILL SCORE



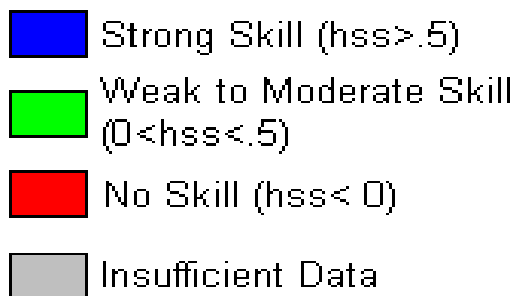
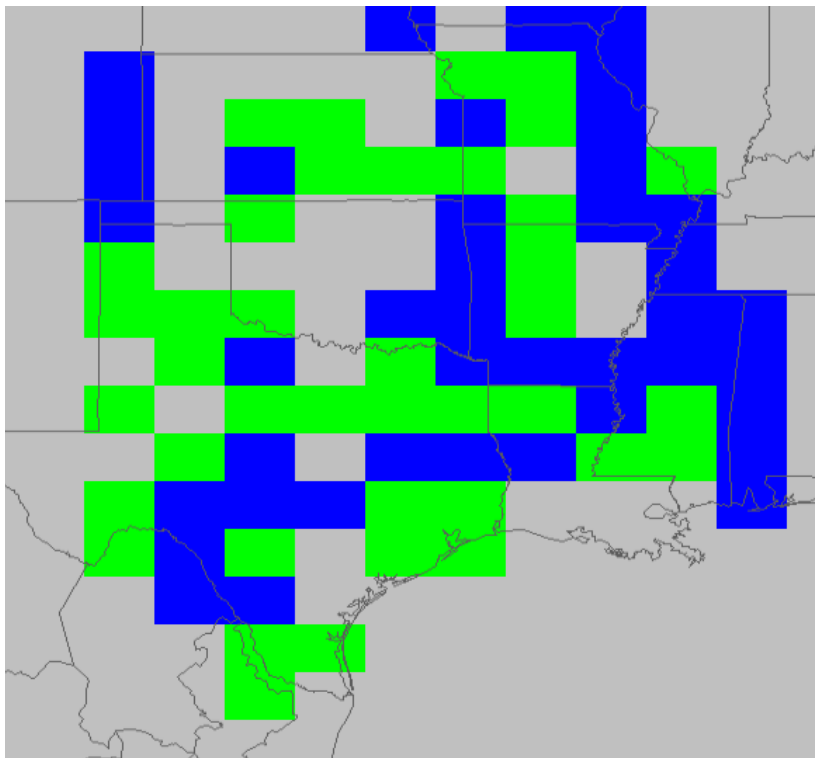
BIAS



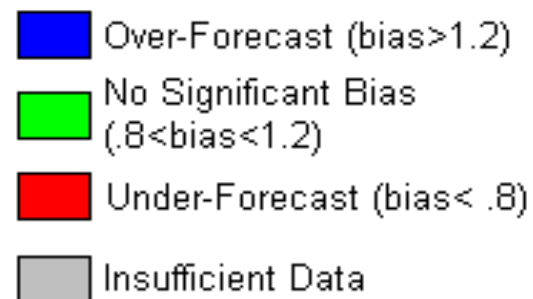
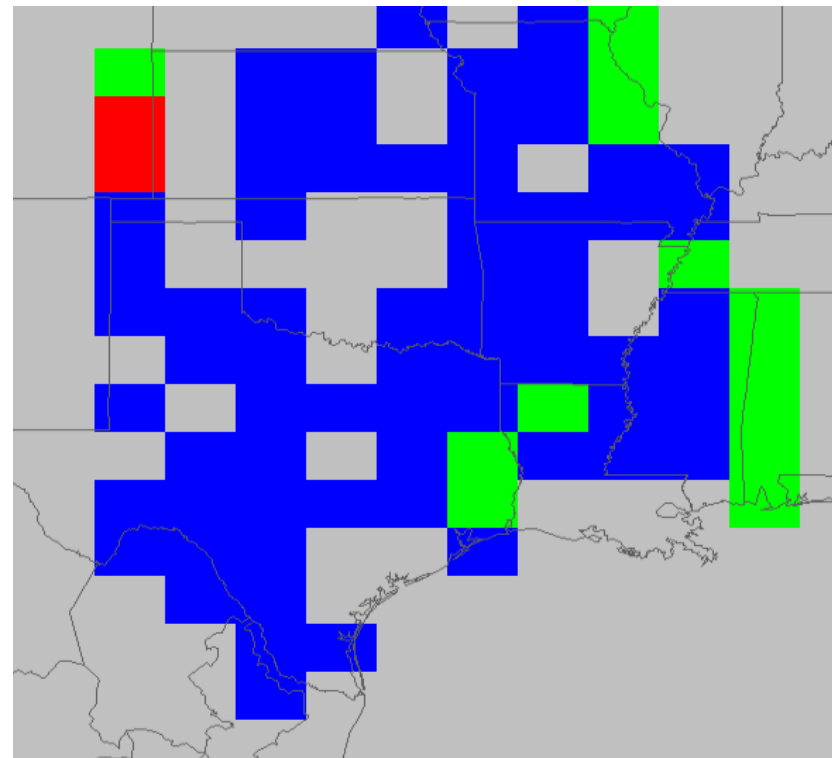


TSTMS 24 Hr Forecast

HEIDKE SKILL SCORE



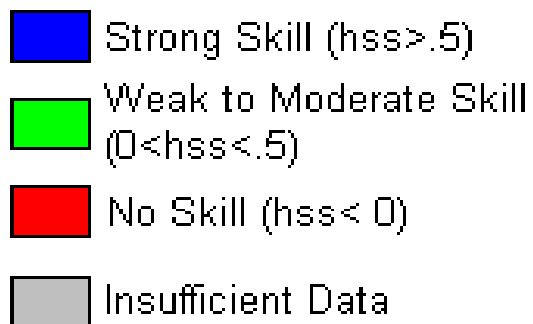
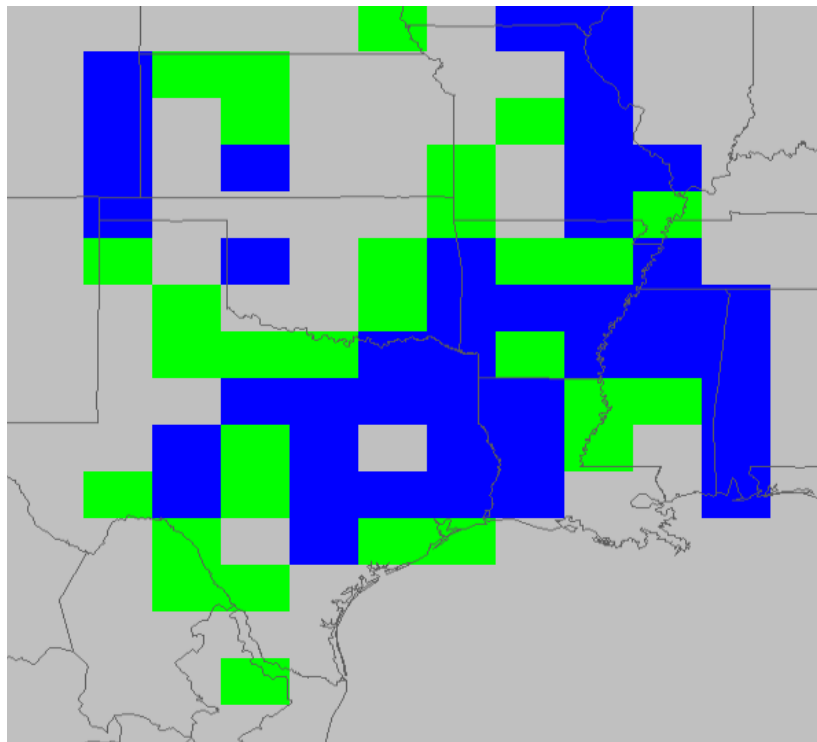
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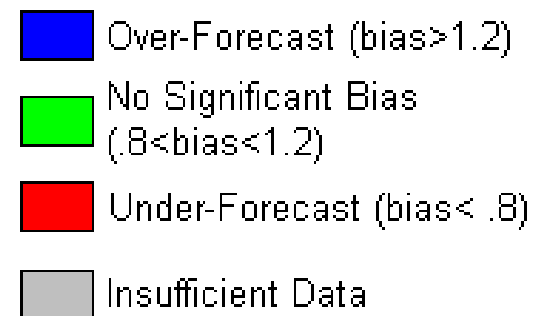
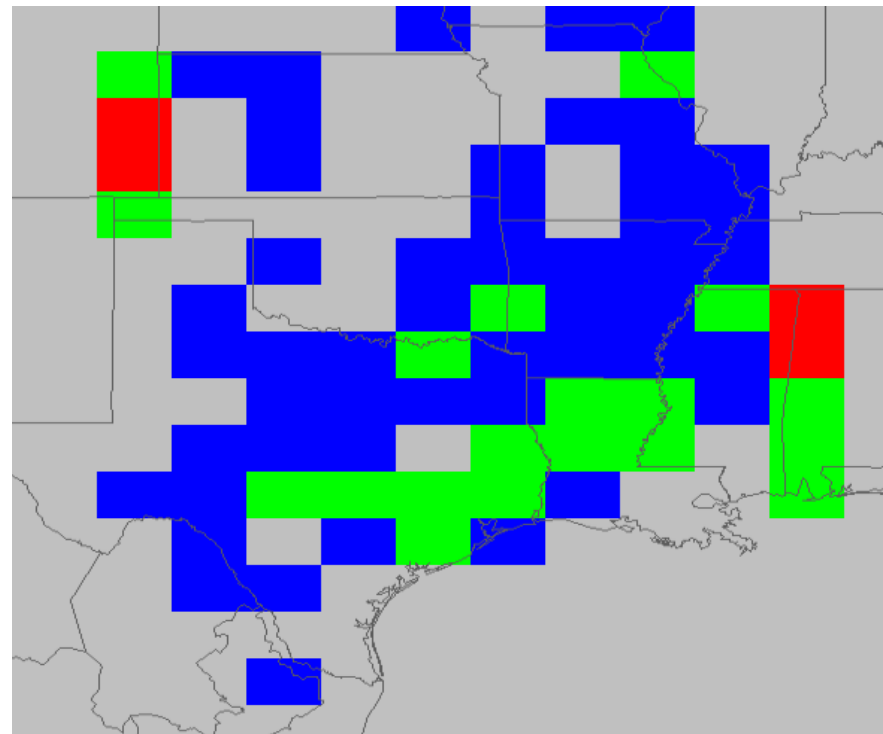


TSTMS 48 Hr Forecast

HEIDKE SKILL SCORE



BIAS

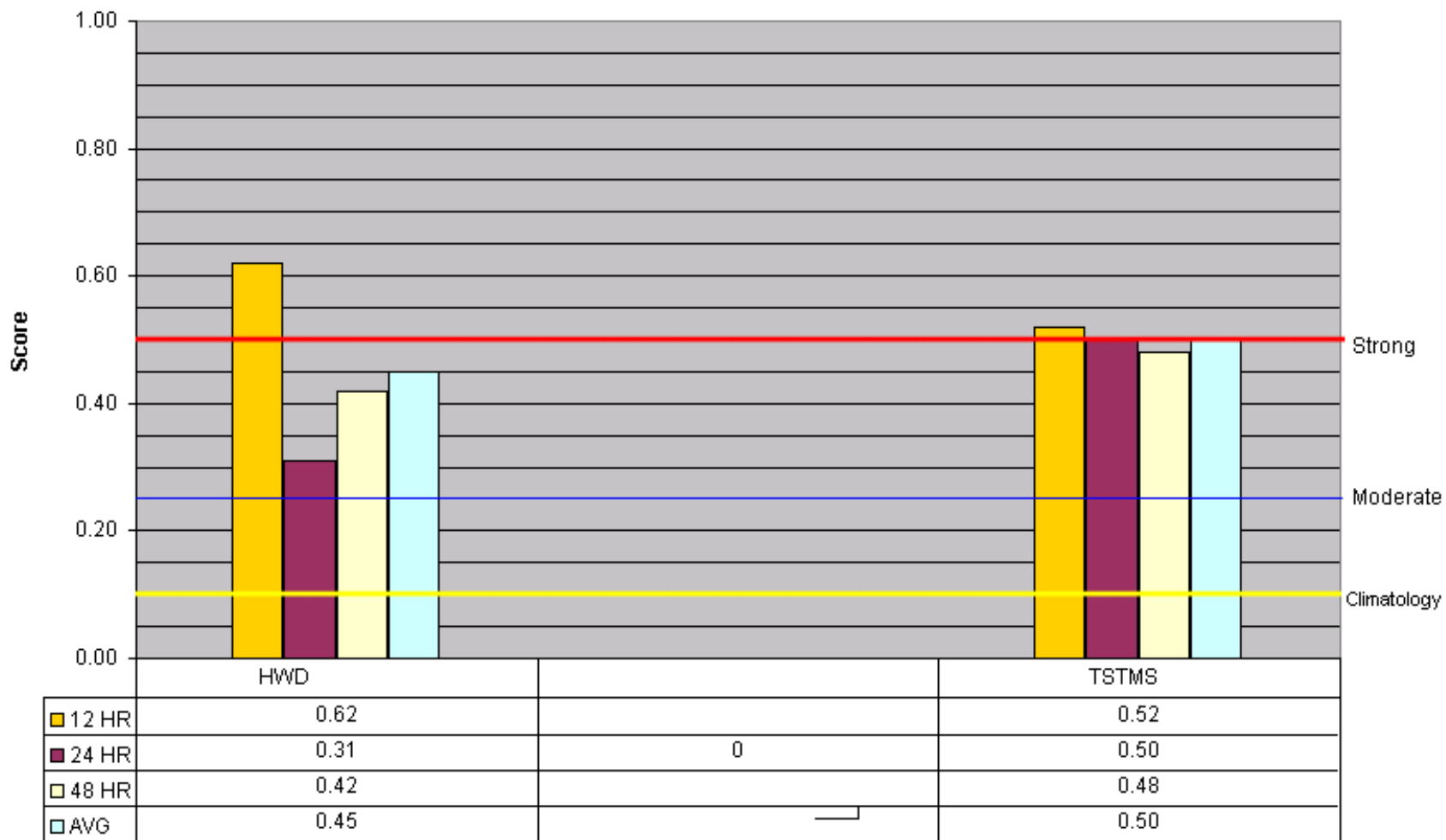




Numerical Output

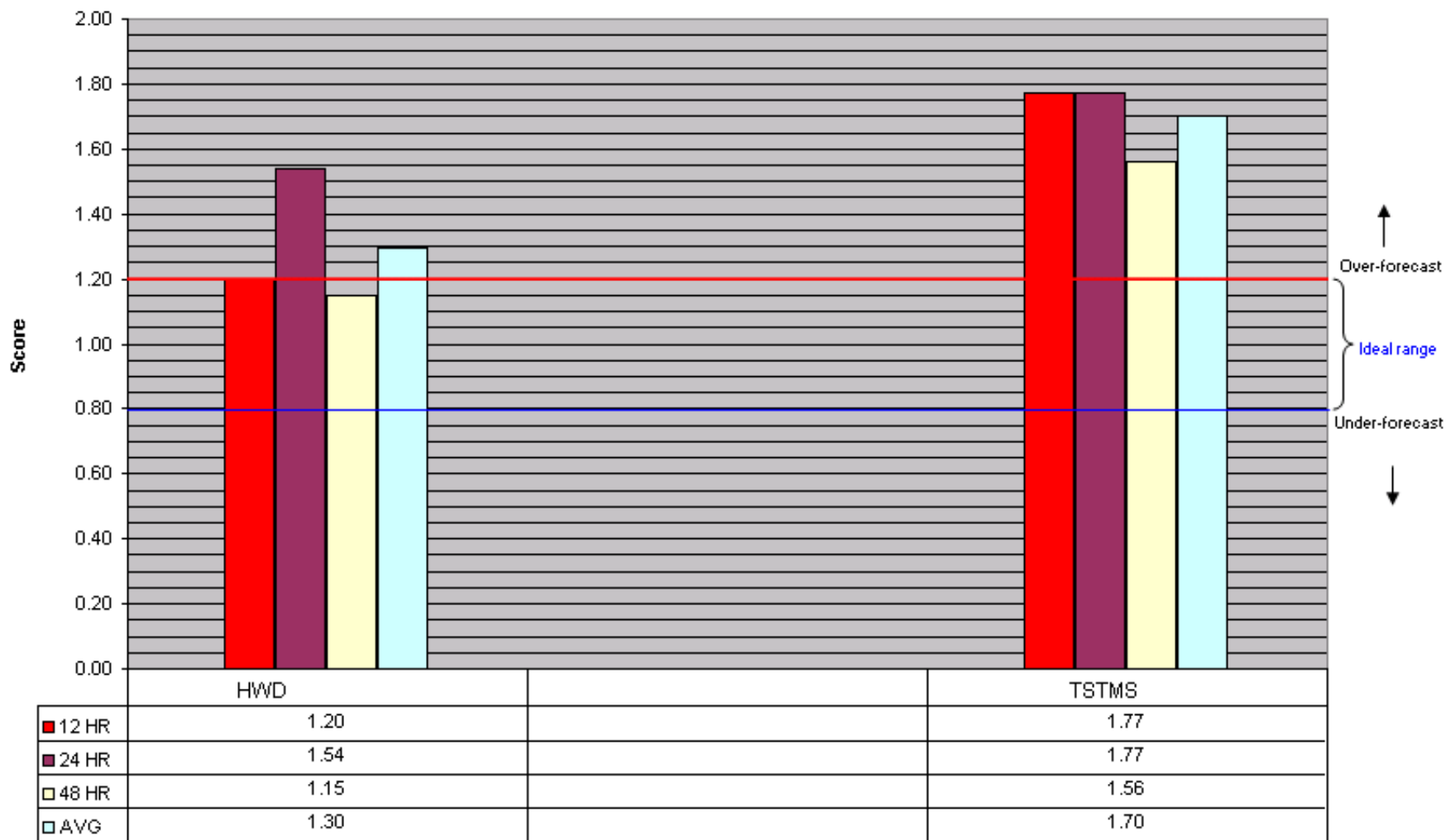


Jul 04 HSS





Jul 04 BIAS

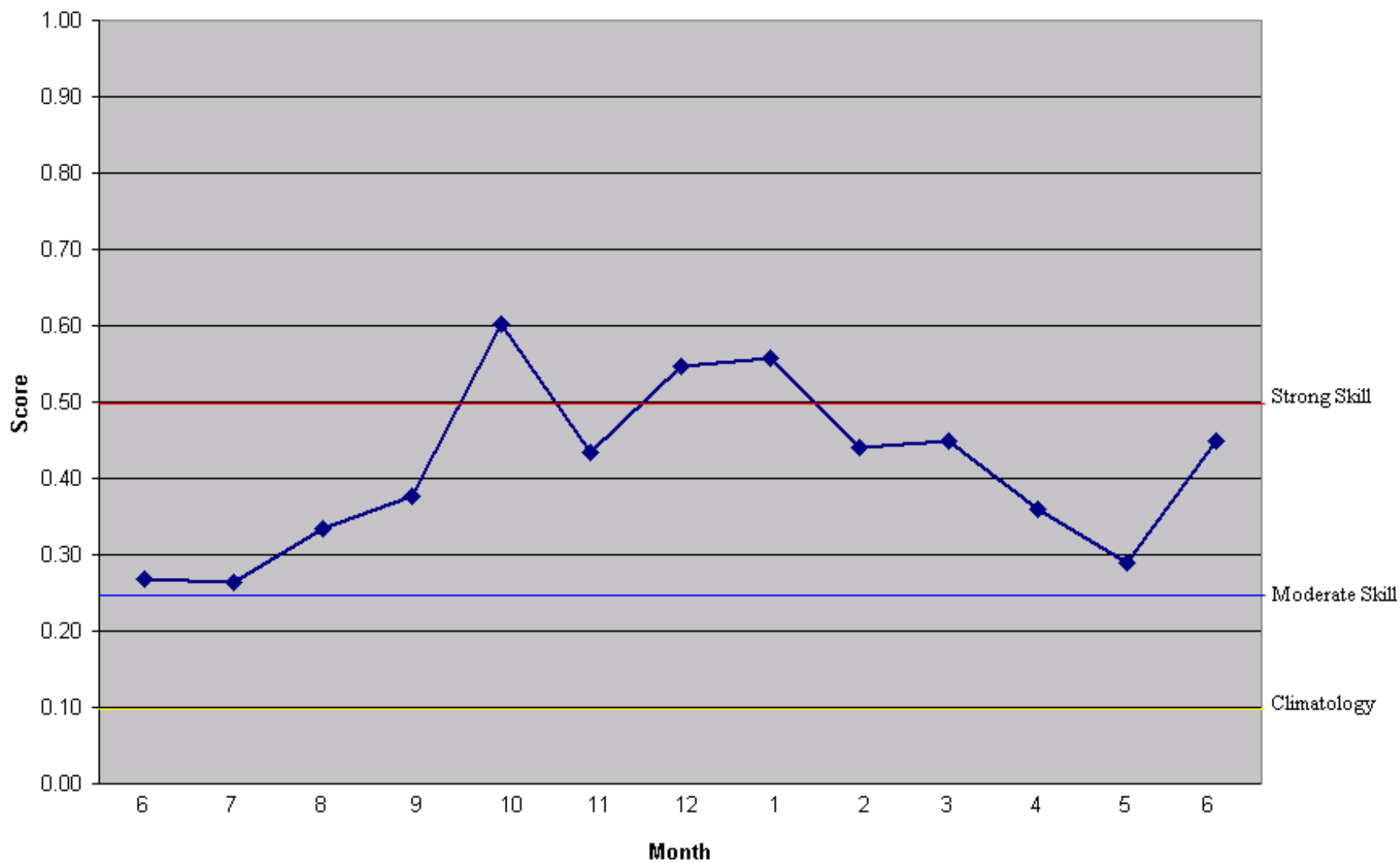




Graphics Trends

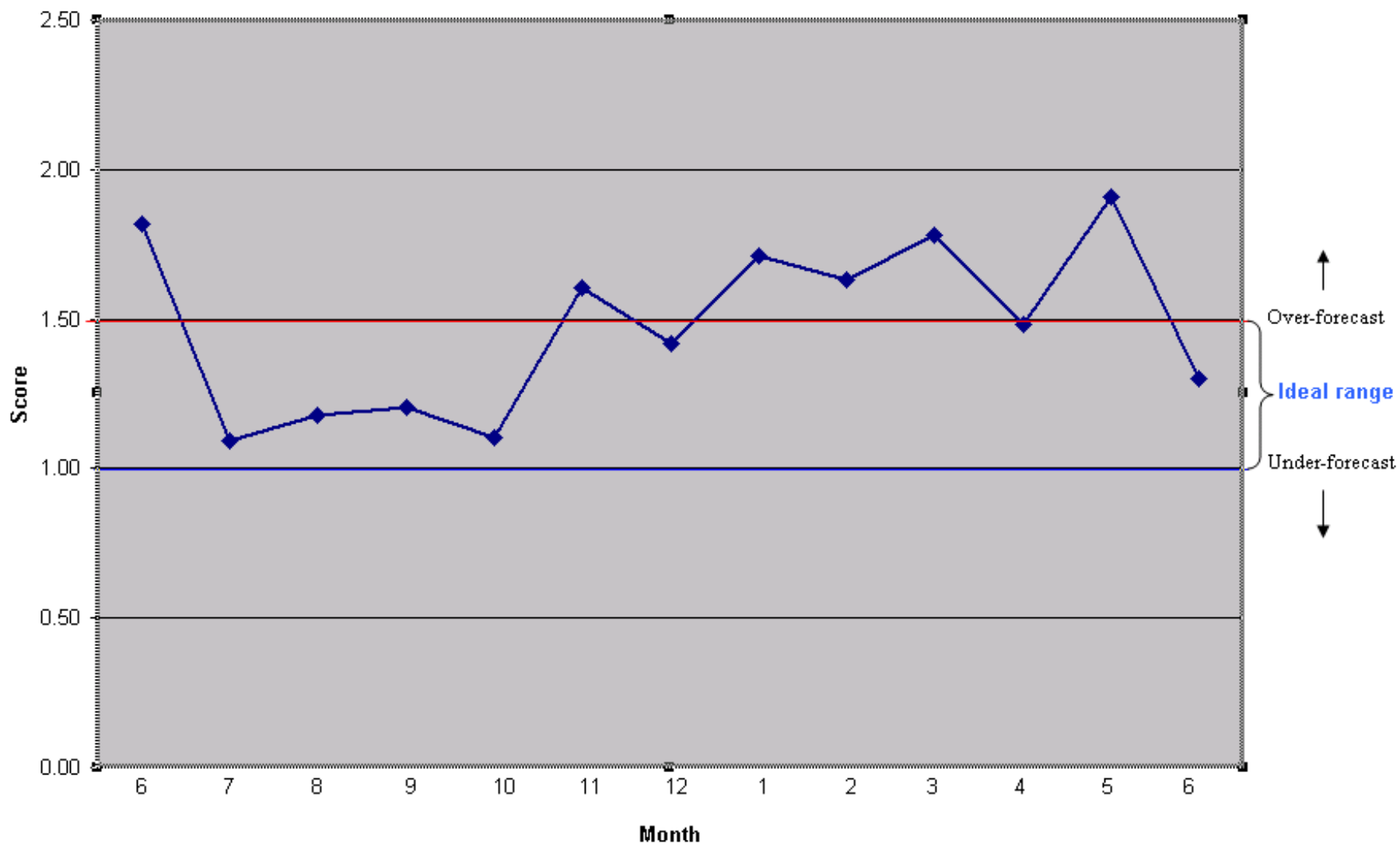


HSS HWD ALL HOURS



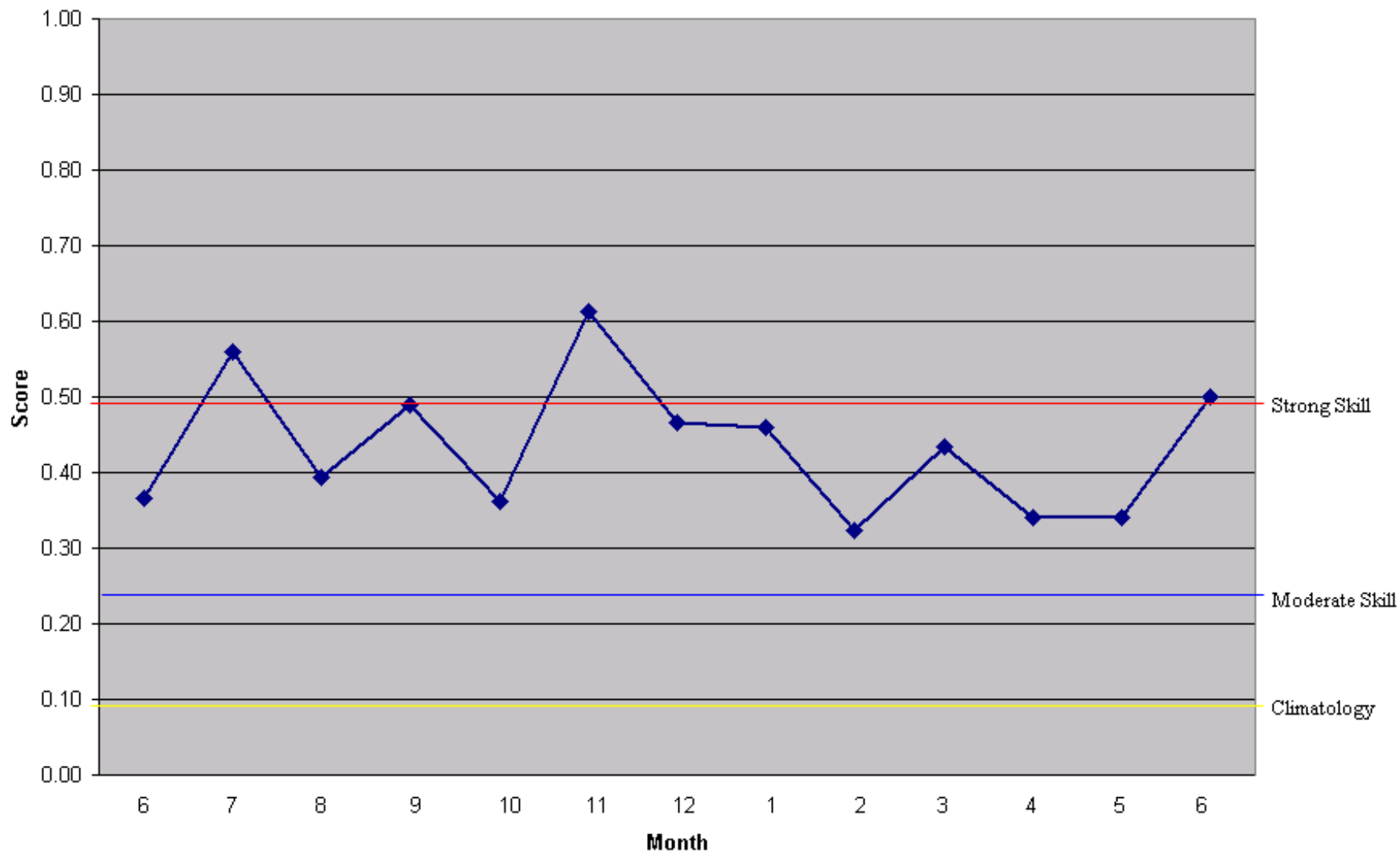


BIAS HWD ALL HOURS



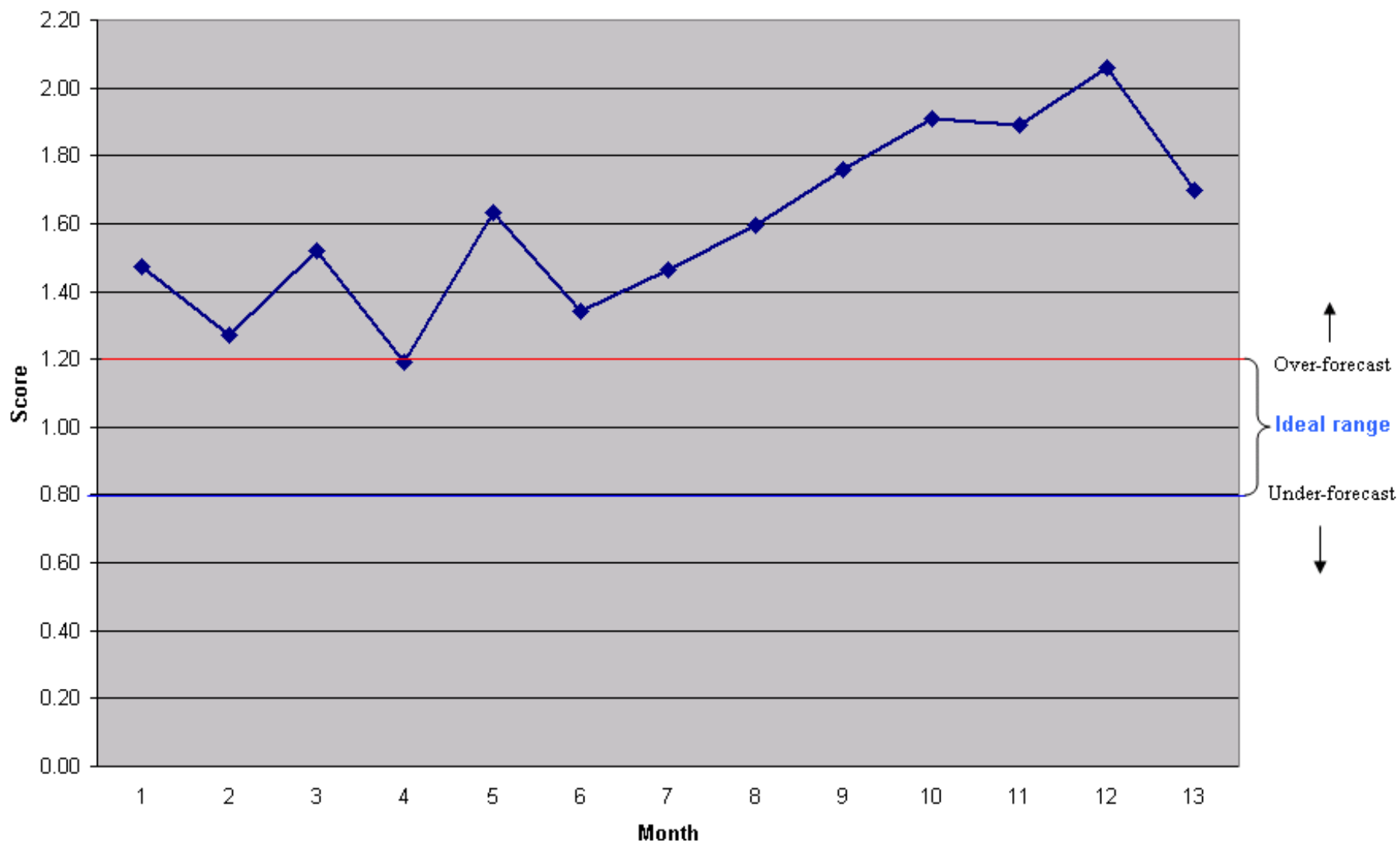


HSS TSTM ALL HOURS





BIAS TSTM ALL HOURS





Review

- HWD – Showed strong skill in HWD forecasting. Improved over June 04 and July 03 results. **Fell into ideal range for forecast bias—also an improvement from last month.**
- TSTMS – Showed strong skill in TSTM forecasting. Still over forecasting, but improved from last month and reversed over forecasting trend.